

Notice of Allowability

Application No.

09/773,246

Applicant(s)

ROLSTON ET AL.

Examiner

Melanie Jagannathan

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 8/22/2005.
2. ☒ The allowed claim(s) is/are 1-18.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|---|--|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input checked="" type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date <u>10/28/2005</u> . |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____ | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____ |

DETAILED ACTION

- Examiner has considered Amendment after Non-Final mailed 8/12/2005.
- Claims 1-18 are pending.

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Thomas Adams on October 28, 2005.

The application has been amended as follows:

Claim 18 has been amended as follows:

18. (Currently amended) ~~Apparatus for synchronizing arrival times at a detection point of pulses in two pulse trains traversing the detection point in opposite directions, the apparatus~~ A slave node unit for use in apparatus for providing synchronized clock signals at "N" distributed nodes in a synchronous system, the apparatus comprising a master node unit and a plurality of said slave node units interconnected in series by first and second propagation channels, the master node unit comprising:

pulse generation means for providing a first pulse train and a second pulse train, the pulse trains each being regular and both having the same period;

means for propagating the first pulse train around the slave nodes via the first propagation channel and the second pulse train around the slave nodes via the second propagation channel; and

means for maintaining the rate of the first pulse train and second pulse train such that, at any instant, there are "pN" pulses in each propagation channel, where "N" is the number of nodes, including the master node, and "p" is an integer; and such that the pulses of the second pulse train arrive at respective ones of the plurality of slave nodes substantially simultaneously and the pulses of the first

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pulse train arrive at respective ones of the plurality of slave nodes substantially simultaneously, but in reverse order to the first pulse train;

the slave node unit comprising:

a plurality of delay units, comprising first pre-delay means and first post-delay means disposed prior to, and following, respectively, the detection point in a first propagation channel whereby pulses of the first train traverse the detection point, second pre-delay means and second post-delay means disposed prior to, and following, respectively, the detection point in a second propagation channel whereby pulses of the second train traverse the detection point, detection and control means for detecting phase differences between pulses from the first and second pulse trains and, responsive thereto, adjusting the delay units selectively so as to reduce the phase differences to below a preset level.

Allowable Subject Matter

2. The following is an examiner's statement of reasons for allowance:

Regarding claims 1, 7, 18, prior art of record does not disclose, in single or in combination, maintaining rate of each first and second pulse trains such that there are pN pulses in each propagation channel at any time, where N is the number of nodes, including master node, and p is an integer, the pulses of first train arrive at respective ones of plurality of slave nodes substantially simultaneously and the pulses of second train arrive at respective ones of plurality of slave nodes substantially simultaneously, in combination with other limitations of claims.

Furthermore, regarding claim 18, prior art of record does not disclose, in single or in combination, a slave node comprising first pre-delay means, first post-delay means disposed prior to, and following respectively the detection point in a first propagation channel and second pre-delay means and second post-delay means disposed prior to and following respectively the detection point in a

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second propagation channel and adjusting the delay units selectively so as to reduce phase differences to below a preset level, in combination with other limitations of claim.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Melanie Jagannathan whose telephone number is 571-272-3163. The examiner can normally be reached on Monday-Friday from 8:00 a.m.-4:30 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Seema Rao can be reached on 571-272-3174. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

MJ *MS*
10/28/2005

Seema S. Rao
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SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600